

**METHOD FOR MAKING SECURE A TYPED DATA LANGUAGE IN
PARTICULAR IN AN INTEGRATED SYSTEM AND INTEGRATED
SYSTEM THEREFOR**

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ABSTRACT

15 The invention concerns a method and an embedded microchip system (8) for the
secure execution of an instruction sequence of a computer application in the form of
typed objects or data, particularly written in "Java" language. The memory (1) is
organized into a first series of elementary stacks (2, 3) for storing instructions. Each
typed object or datum is associated with one or more so-called typing bits specifying
the type. These bits are stored in a second series of elementary stacks (4, 5) that
correspond one-to-one with the stacks (2, 3) of the first series. Before executing
predetermined types of instructions, a continuous verification is performed, prior to
20 the execution of these instructions, of the matching between a type indicated by the
latter and an expected type, indicated by the typing bits. If they do not match, the
execution is stopped.

FIG. 3